

# Mineral Industry Surveys

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### **COPPER IN JANUARY 2002**

Mine, smelter, and refinery production plummeted in January as previously announced cutbacks were implemented. As anticipated, Phelps Dodge Corp.'s Hurley, NM, smelter closed early in the month, production ceased at its Miami, AZ, electrolytic refinery, and mining ceased at its Miami leach operation. Announced cutbacks were also implemented at ASARCO Incorporated's Amarillo, TX, refinery and Mission Complex Mine in Arizona. Consumption of refined copper rose slightly from the depressed December level, but remained almost 24% below the high consumption level experienced in January 2001. A preliminary forecast prepared by the USGS indicates that U.S. mine production and refinery production will decline to 1.14 million metric tons (Mt) and 1.43 Mt, respectively, in 2002. Smelter production is expected to fall to about 700,000 metric tons (t).

The International Copper Study Group (ICSG) held its 10th General Session during March 18-22, in Santiago, Chile. A consensus view of the world balance of supply and use for refined copper was developed and adopted by the ICSG Statistical Committee. Accordingly, adjusted world production of refined copper (from both primary and secondary sources) is projected to decrease in 2002 by about 280,000 t (-1.8%) to

15.16 Mt. World refined copper use, after falling by 549,000 t (-3.6%) in 2001, is expected to recoup much of its loss, increasing by 437,000 t (+3.0%) to 15.18 Mt. Consequently, the calculated production surplus of 696,000t in 2001 is expected to be eliminated and an essentially balanced market (-20,000 t) is anticipated for 2002. Yearend 2002 inventories thus are expected to remain near the high levels established at yearend 2001. The preliminary ICSG forecast for world production of refined copper in 2003 shows an increase of about 500,000t (+3.3%). Though significant uncertainty exists regarding economic recovery in many countries, the ICSG anticipated refined use to increase by about 770,000 t (+5.0%), to a record-high 15.9 Mt. As a result, a production deficit and inventory drawdown of about 300,000 t could develop (International Copper Study Group, 2002).

### **Reference Cited**

International Copper Study Group, 2002, International Copper Study Group holds 10th anniversary meeting in Santiago, Chile: Lisbon, Portugal, International Copper Study Group press release, March 25, 1 p.

# ${\bf TABLE~1}$ SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES 1/

(Metric tons, unless otherwise specified)

	Source	2001	l p/	2002
	table 2/	December	Year	January
Production:				
Primary:				
Mine, recoverable	(2)	110,000	1,340,000	94,900
Refinery:		·		
Electrolytic:				
Domestic	(4)	75,800	828,000	69,500
Foreign	(4)	12,900	185,000	9,620
Electrowon	(4)	53,200	631,000	50,600
Total	(4)	142,000	1,640,000	130,000
Secondary recoverable copper:				
Refineries	(5)	5,710	150,000	7,110
Ingot makers 3/	(5)	10,100	121,000	10,100
Brass and wire-rod mills	(5)	66,400	791,000	67,500
Foundries, etc. 3/	(5)	5,590	67,100	5,590
Smelter, total	(3)	86,100	945,000	70,800
Consumption:				
Apparent	(8)	210,000	2,520,000	NA
Refined (reported)	(7)	185,000 r/	2,620,000 r/	195,000
Purchased copper-base scrap	(9)	121,000	1,490,000	124,000
Stocks at end of period:	<del></del>			
Total refined	(11)	947,000	XX	1,000,000
Blister, etc.	(11)	93,600	XX	71,100
Prices:				
U.S. producer cathode				
(cents per pound) 4/	(12)	72.050	76.854	73.944
Imports: 5/				
Ores and concentrates 6/	(14)	45,300	122,000	NA
Refined	(14)	74,400	991,000	NA
Exports: 5/				
Ores and concentrates 6/	(15)	1,780	45,300	NA
Refined	(15)	571	22,500	NA

p/ Preliminary. r/ Revised. NA Not available. XX Not applicable.

<sup>1/</sup> Data are rounded to no more than three significant digits, except prices; may not add to totals shown.

<sup>2/</sup> Numbers in parentheses refer to the detailed tables where these data are located.

<sup>3/</sup> Monthly data and 2001 cumulative data estimated based on 2000 monthly average.

<sup>4/</sup> Source: Platts Metals Week.

<sup>5/</sup> Source: U.S. Census Bureau.

<sup>6/</sup> Copper content.

#### TABLE 2 MINE PRODUCTION OF RECOVERABLE COPPER IN THE UNITED STATES 1/

### (Metric tons)

Period	Arizona	Others 2/	Total
2001: p/			
January	75,800	41,400	117,000
February	68,400	41,600	110,000
March	68,200	43,100	111,000
April	69,800	40,600	110,000
May	78,700	43,600	122,000
June	76,000	39,500	115,000
July	72,800	37,000	110,000
August	73,000	35,900	109,000
September	73,000	33,600	107,000
October	76,800	36,600	113,000
November	73,300	29,000	102,000
December	74,400	35,800	110,000
Total	880,000	458,000	1,340,000
2001:			
January	66,400	28,500	94,900

p/ Preliminary.

TABLE 3
COPPER PRODUCED AT SMELTERS IN THE
UNITED STATES, BY SOURCE 1/2/

(Metric tons, copper content)

	Domestic and		
Period	foreign ores	Scrap	Total
2001: p/			
January	W	W	88,400
February	W	W	78,800
March	W	W	78,800
April	W	W	81,900
May	W	W	84,700
June	W	W	80,200
July	W	W	58,100
August	W	W	71,100
September	W	W	70,900
October	W	W	86,300
November	W	W	79,700
December	W	W	86,100
Total	W	W	945,000
2002:			
January	W	W	70,800

p/ Preliminary. W Withheld to avoid disclosing company proprietary data included in "Total."

<sup>1/</sup> Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2/</sup> Includes production from Alaska, Idaho, Missouri, Montana, Nevada, New Mexico, and Utah.

 $<sup>1/\</sup>operatorname{Includes}$  blister, a node and black copper from primary or secondary sources.

 $<sup>2/\,\</sup>mathrm{Data}$  are rounded to no more than three significant digits; may not add to totals shown.

### ${\bf TABLE~4}$ PRODUCTION OF REFINED COPPER, BY SOURCE AND METHOD OF RECOVERY 1/

### (Metric tons)

		Primary	materials			Scrap		
	Electrol	ytically		_	Electro-			
	refine	ed 2/			lytically	Fire		Total
Period	Domestic 3/	Foreign	Electrowon	Total	refined 2/	refined	Total	refined
2001: p/								
January	78,000	16,700	45,200	140,000	W	W	15,400	155,000
February	69,100	14,700	43,100	127,000	W	W	16,800	144,000
March	77,400	11,800	50,400	140,000	W	W	16,700	156,000
April	66,500	12,900	54,300	134,000	W	W	13,400	147,000
May	72,500	15,100	55,000	143,000	W	W	12,800	155,000
June	71,100	15,500	55,100	142,000	W	W	13,200	155,000
July	64,800	14,300	55,100	134,000	W	W	13,900	148,000
August	56,300	19,900	56,300	132,000	W	W	13,500	146,000
September	64,300	17,900	54,000	136,000	W	W	12,300	149,000
October	61,300	17,400	55,000	134,000	W	W	10,200	144,000
November	71,200	16,100	54,000	141,000	W	W	6,420	148,000
December	75,800	12,900	53,200	142,000	W	W	5,710	148,000
Total	828,000	185,000	631,000	1,640,000	W	W	150,000	1,790,000
2000:								
January	69,500	9,620	50,600	130,000	W	W	7,110	137,000

- p/ Preliminary. W Withheld to avoid disclosing company proprietary data; included in "Scrap Total."
- 1/ Data are rounded to no more than three significant digits; may not add to totals shown.
- 2/ Based on source of material at smelter level.
- 3/ Includes fire-refined copper.

 ${\it TABLE~5} \\ {\it COPPER~RECOVERABLE~IN~UNALLOYED~AND~ALLOYED~FORM~FROM~PURCHASED~COPPER-BASE~SCRAP~1/2} \\ {\it COPPER~RECOVERABLE~IN~UNALLOYED~AND~ALloYED~AND~AlloYED~AND~AlloYED~AlloYED~AlloYED~AND~AlloYED~Allo~Allo~Allo~Allo$ 

(Metric tons, copper content)

					Bras	s and			
	Refine	Refineries 2/		Ingot makers 3/		wire-rod mills		s, etc. 3/	
Period	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	Total 4/
2001: p/									
January	2,850	12,500	2,490	7,560	67,000	2,580	1,230	4,360	101,000
February	3,470	13,400	2,490	7,560	65,700	2,630	1,230	4,360	101,000
March	3,120	13,600	2,490	7,560	67,200	2,260	1,230	4,360	102,000
April	2,680	10,700	2,490	7,560	66,700	1,770	1,230	4,360	97,500
May	2,240	10,500	2,490	7,560	65,700	297	1,230	4,360	94,400
June	2,730	10,500	2,490	7,560	62,600	1,060	1,230	4,360	92,600
July	3,470	10,400	2,490	7,560	57,300	969	1,230	4,360	87,800
August	3,240	10,300	2,490	7,560	62,600	1,790	1,230	4,360	93,500
September	2,800	9,480	2,490	7,560	61,500	1,140	1,230	4,360	90,500
October	3,180	7,060	2,490	7,560	67,800	1,790	1,230	4,360	95,400
November	2,030	4,380	2,490	7,560	63,100	1,640	1,230	4,360	86,800
December	1,710	4,000	2,490	7,560	64,500	1,880	1,230	4,360	87,800
Total	33,500	117,000	29,900	90,700	772,000	19,800	14,700	52,400	1,130,000
2002:									
January	3,100	4,010	2,490	7,560	65,800	1,790	1,230	4,360	90,300

p/ Preliminary.

- 1/ Data are rounded to no more than three significant digits; may not add to totals shown.
- 2/ Electrolytically refined and fire-refined scrap based on source of material at smelter level.
- 3/ Monthly data and 2001 cumulative data estimated based on 2000 annual data.
- 4/ Does not include an estimate, based on reported 2000 data, of 3,790 tons per month from new scrap and 2,380 tons per month from old scrap of copper recovered from scrap other than copper-base.

TABLE 6 PRODUCTION, SHIPMENTS, AND STOCKS OF BRASS AND WIRE-ROD MILL SEMIFABRICATES 1/

(Metric tons, gross weight)

	Pro	duction	Shi	pments	Stocks, end of period	
Period	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills
2001: p/						
January	127,000	176,000	126,000	173,000	56,100	37,500
February	129,000	151,000	127,000	150,000	57,900	37,800
March	133,000	163,000	132,000	169,000	59,000	31,900
April	127,000	152,000	127,000	148,000	58,800	31,600
May	125,000	152,000	127,000	154,000	57,300	30,000
June	125,000	150,000	129,000	150,000	53,200	30,300
July	108,000	158,000	108,000	156,000	53,100	30,100
August	128,000	163,000	128,000	163,000	52,800	30,000
September	122,000	158,000	121,000	159,000	53,800	28,800
October	124,000	164,000	123,000	165,000	55,100	25,700
November	117,000	157,000	118,000	155,000	55,300	27,500
December	116,000	139,000 r/	115,000	140,000 r	56,700	26,700
Total	1,480,000	1,880,000 r/	1,480,000	1,880,000 r	/ XX	XX
2002:						
January	124,000	143,000	126,000	142,000	52,600	26,100

p/ Preliminary. r/ Revised. XX Not applicable.

 $\label{eq:table 7} TABLE~7$  CONSUMPTION OF REFINED COPPER 1/

### (Metric tons)

	Wire-rod	Brass	Other	
Period and item	mills	mills	plants 2/	Total
2001: p/				
January	192,000	58,000	5,360	255,000
February	163,000	57,500	5,360	226,000
March	175,000	62,900	5,360	243,000
April	160,000	53,500	5,360	219,000
May	156,000	55,600	5,360	217,000
June	157,000	54,600	5,360	217,000
July	161,000	44,700	5,360	211,000
August	160,000	52,000	5,360	217,000
September	155,000	47,300	5,360	208,000
October	164,000	47,000	5,360	217,000
November	151,000 r/	46,300	5,360	202,000 r/
December	135,000 r/	44,700	5,360	185,000 r/
Total	1,930,000 r/	624,000	64,300	2,620,000 r/
2002:				
January:				
Cathodes	141,000	34,900	1,210	177,000
Wire bars	<del></del>		W	W
Ingots and ingot bars		1,520	1,760	3,280
Cakes and slabs	752	W	W	752
Billets and other		11,200	2,400	13,600
Total	142,000	47,700	5,360	195,000

p/ Preliminday. r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Billets and other." -- Zero.

<sup>1/</sup> Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>1/</sup> Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2/</sup>Consumption by ingot makers, chemical plants, foundries, and miscellaneous manufacturers is estimated based on 2000 annual data.

### TABLE 8 U.S. APPARENT CONSUMPTION OF COPPER 1/

### (Metric tons)

	Refined copper	Copper in	Refined general	Refined	Stock change	Apparent
Period	production	old scrap 2/	imports 3/	exports 3/	during period	consumption
2001: p/	_					
January	140,000	29,600	123,000	1,180	23,600	268,000
February	127,000	30,500	88,200	2,070	5,960	238,000
March	140,000	30,400	101,000	2,880	70,400	197,000
April	134,000	27,000	107,000	1,890	70,600	195,000
May	143,000	25,400	72,400	1,020	13,700	226,000
June	142,000	26,100	89,000	815	46,200	210,000
July	134,000	25,900	95,800	1,650	109,000	145,000
August	132,000	26,600	80,900	2,590	31,000	206,000
September	136,000	25,200	114,000	1,190	88,900	185,000
October	134,000	23,400	78,600	4,630	35,400	196,000
November	141,000	20,600	148,000	5,290	65,500	239,000
December	142,000	20,400	101,000	571	52,200	210,000
Total	1,640,000	311,000	1,200,000	25,800	613,000	2,520,000
2002:	_					
January	130,000	20,300	NA	NA	57,200	NA

p/ Preliminary. NA Not available.

TABLE 9 CONSUMPTION OF PURCHASED COPPER-BASE SCRAP 1/

### (Metric tons, gross weight)

	Sme	lters			Bras	s and			
	and ref	ineries	Ingot m	akers 2/	wire-rod mills 3/		Foundri	ies, etc. 2/	Total scrap
Period	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	used
2001: p/									
January	5,460	14,900	3,670	10,400	85,300	2,650	2,180	4,740	129,000
February	6,610	15,600	3,670	10,400	82,500	2,700	2,180	4,740	128,000
March	6,430	14,000	3,670	10,400	85,100	2,330	2,180	4,740	129,000
April	6,460	14,800	3,670	10,400	84,600	1,820	2,180	4,740	129,000
May	3,400	17,400	3,670	10,400	84,000	338	2,180	4,740	126,000
June	3,400	16,200	3,670	10,400	79,900	1,120	2,180	4,740	122,000
July	3,590	16,500	3,670	10,400	72,200	1,010	2,180	4,740	114,000
August	3,530	16,900	3,670	10,400	79,400	1,840	2,180	4,740	123,000
September	3,530	15,900	3,670	10,400	77,800	1,190	2,180	4,740	119,000
October	3,620	15,700	3,670	10,400	85,700	1,840	2,180	4,740	128,000
November	3,530	14,700	3,670	10,400	79,600	1,690	2,180	4,740	121,000
December	3,520	13,500	3,670	10,400	81,500	1,930	2,180	4,740	121,000
Total	53,100	186,000	44,000	125,000	978,000	20,500	26,200	56,800	1,490,000
2002:									
January	4,090	13,500	3,670	10,400	83,100	1,840	2,180	4,740	124,000

p/ Preliminary.

<sup>1/</sup> Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2/</sup> Includes reported monthly production of copper from old scrap of copper-base, an estimate for annual reporters, and a monthly average of copper from non-copper-base materials based on 2000 data.

<sup>3/</sup> Source: U.S. Census Bureau.

<sup>1/</sup> Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2/</sup> Monthly data and 2001 cumulative data estimated from 2000 annual data.

<sup>3/</sup> Consumption at brass and wire-rod mills assumed equal to receipts.

### TABLE 10 CONSUMPTION OF PURCHASED COPPER-BASE SCRAP 1/2/

(Metric tons, gross weight)

-		200	01 p/		2002
Scrap type and processor	January	November	December	Year	January
No. 1 wire and heavy:					
Smelters and refiners	5,580 r/	4,340	4,300	69,400	4,310
Brass and wire-rod mills	38,700	35,100	36,100	430,000	36,700
No. 2 mixed heavy and light:					
Smelters and refiners	11,600	7,000	5,880	120,000	6,420
Brass and wire-rod mills	553	292	348	5,340	291
Total unalloyed scrap:					
Smelters and refiners	17,100 r/	11,300	10,200	190,000	10,700
Brass and wire-rod mills	39,300 r/	35,300	36,400	436,000	37,000
Red brass: 3/					
All plants	4,790 r/	4,650	4,650	59,800	4,460
Leaded yellow brass:					
All plants	32,900 r/	27,100	28,200	353,000	29,100
Yellow and low brass:					
All plants	10,500 r/	10,500	10,500	126,000	10,600
Cartridge cases and brass:					
Smelters and refiners	W	W	W	W	W
Brass mills	4,050	6,260	6,250	66,700	6,180
Auto radiators:					
Smelters and refiners	4,040 r/	3,620	3,620	47,200	3,620
Bronzes:					
Smelters and refiners	922 r/	922	922	11,100	922
Brass mills	576	955	955	8,560	954
Nickel-copper alloys:					
All plants	1,680 r/	1,070	1,050	13,400	1,210
Low grade and residues:					
Smelters and refiners	5,200 r/	1,120	1,120	50,100	1,120
Other alloy scrap: 4/					
Smelters and refiners 5/	942 r/	138	138	8,890	138
Brass mills	432	565	565	5,740	565
Total alloyed scrap:					
Smelters and refiners	17,300 r/	11,000	11,000	188,000	11,000
Brass mills	48,700	45,900	47,000	563,000	47,900
Total scrap:					
Smelters and refiners	34,400 r/	22,300	21,100	378,000	21,700
Brass and wire-rod mills	88,000 r/	81,300	83,400	998,000	84,900

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Other alloy scrap: Smelters and refiners."

<sup>1/</sup> Does not include: consumption by foundries, chemical plants, and miscellaneous manufacturers, estimated to total about 6,920 tons of scrap per month in 2000; monthly data include estimates of about 15,500 tons of scrap per month consumed by ingot makers and several smelters that report on an annual basis.

<sup>2/</sup> Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>3/</sup> Includes composition turnings, silicon bronze, zincy bronze, railroad car boxes, cocks and faucets, gilding metal, and commercial bronze.

<sup>4/</sup> Includes refinery brass, beryllium copper, phosphor copper, and aluminum bronze.

<sup>5/</sup> Includes items indicated by symbol W.

### TABLE 11 COPPER STOCKS AT END OF PERIOD 1/

### (Metric tons)

				Re	fined coppe	r		
	Crude		Wire rod					Total
Period	copper 2/	Refineries 3/	mills 3/	Brass mills 3/	Other 4/	Comex 5/	LME 6/	refined
2001: p/								
January	102,000	15,100	25,200	25,900	4,680	71,900	215,000	358,000
February	105,000	18,700	23,000	28,100	4,680	81,600	208,000	364,000
March	102,000	22,600	27,600	31,700	4,680	95,400	252,000	434,000
April	95,600	27,500	26,500	34,700	4,680	115,000	297,000	505,000
May	98,100	28,100	27,300	23,100	4,680	137,000	298,000	519,000
June	92,500	26,600	30,200	20,900	4,680	150,000	333,000	565,000
July	89,500	20,000	30,800	23,400	4,680	160,000	435,000	674,000
August	93,400	18,400	28,900	24,300	4,680	170,000	459,000	705,000
September	88,700	17,700	28,200	22,300	4,680	181,000	540,000	794,000
October	104,000	19,700	25,700	21,300	4,680	191,000	566,000	829,000
November	85,400	23,900	24,500	25,900	4,680	215,000	601,000	895,000
December	93,600	25,200	29,900	26,600	4,680	244,000	617,000	947,000
2002:								
January	71,100	26,300	34,700	26,300	4,680	258,000	654,000	1,000,000

p/ Preliminary.

- 1/ Data are rounded to no more than three significant digits; may not add to totals shown.
- 2/ Copper content of blister and other materials in transit and in process of refining.
- 3/ Stocks of refined copper as reported; no estimates are made for nonrespondents.
- 4/M Monthly estimates based on reported and 2000 annual data, comprising stocks at ingot makers, chemical plants, foundries, and miscellaneous manufacturers.
- 5/ Commodity Exchange Inc., New York.
- 6/ London Metal Exchange Ltd., U.S. warehouses.

TABLE 12
AVERAGE PRICE OF COPPER IN THE UNITED STATES AND ON THE LONDON METAL EXCHANGE

### (Cents per pound)

	TT 0 1		13.00	
	U.S. producers	Comex	LME	
	delivered price	first	cash price	
Period	cathode 1/	position 2/	Grade A	
2001:	<u>_</u>			
January	88.018	83.700	81.059	
February	86.323	82.005	80.069	
March	84.384	80.066	78.856	
April	80.578	76.260	75.467	
May	81.166	76.848	76.288	
June	75.501	72.573	72.943	
July	72.261	69.438	69.166	
August	71.559	67.341	66.407	
September	69.628	65.428	64.682	
October	67.422	63.204	62.460	
November	70.560	66.093	64.747	
December	72.050	67.832	66.740	
Year	76.854	72.567	71.574	
2002:	_			
January	73.944	69.786	68.202	

<sup>1/</sup> Listed as "U.S. producer cathode."

2/ Listed as "Comex high grade first position."

Sources: Platts Metals Week and American Metal Market.

# TABLE 13 NEW YORK AVERAGE BUYING PRICES FOR COPPER SCRAP

(Cents per pound)

			Dealers (New York)		
				Red brass	
	Brass mills	Refiners	No. 2	turnings and	
Month	No. 1 scrap	No. 2 scrap	scrap	borings	
2001:	_				
January	82.45	68.05	56.45	44.10	
February	77.84	65.97	53.00	42.00	
March	76.16	63.74	53.09	42.00	
April	72.98	61.36	51.16	42.00	
May	72.82	61.95	51.86	42.00	
June	68.29	57.99	51.52	42.00	
July	66.46	57.50	50.00	42.00	
August	64.33	55.37	46.00	39.00	
September	63.39	54.46	46.00	40.00	
October	61.39	52.78	44.48	38.39	
November	63.45	53.82	40.09	37.09	
December	65.87	54.47	41.47	37.00	
Year	69.62	58.96	48.76	40.63	
2002:	_				
January	67.36	55.62	41.19	38.10	

Source: American Metal Market.

 ${\it TABLE~14} \\ {\it U.S.~IMPORTS~FOR~CONSUMPTION~OF~COPPER~(UNMANUFACTURED),~BY~CLASS~1/}$ 

(Metric tons, copper content)

	Ore and concentrate			Matte,	Matte, ash and precipitates			ister and anod	les	Refined		
		200	1		2001			200	1		2001	
Country or			January -		January -			January -				January -
territory	2000	December I	December	2000	December December		2000	December December		2000	December	December
Bulgaria							4,040		497	56		
Canada			7,210	20		43	53,500	6,490	79,700	268,000	31,700	270,000
Chile		45,300	51,800	1			76,200	3,570	87,700	258,000	7,040	174,000
Finland							2,180			178		969
Indonesia			20,000									
Italy							2,180		12,200	(2/)		
Kazakhstan										54,900	3,950	82,400
Mexico			2,550	757		317	19,500	632	48,900	80,400	4,480	131,000
Namibia							2,750		6,840			
Peru			40,200				5,960		22,600	311,000	21,100	280,000
Philippines	5								4,990			999
Russia							117		115	58,900		22,800
Spain							5,670		4,420			
Taiwan				644	20	560				101		34
Turkey							11,000			1,100		
Other	48			261	12	25	1,700		3,010	23,800	6,210	28,400
Total	53	45,300	122,000	1,680	31	945	185,000	10,700	271,000	1,060,000	74,400	991,000

<sup>--</sup> Zero.

Source: U.S. Census Bureau.

<sup>1/</sup> Data are rounded to no more than three significant digits; may not add to totals shown.

 $<sup>2/\</sup> Less$  than  $1/2\ unit.$ 

TABLE 15
U.S. EXPORTS OF COPPER (UNMANUFACTURED), BY CLASS 1/

(Metric tons, copper content)

	Or	Ore and concentrate			Matte, ash and precipitates			Blister and a	nodes	Refined		
		20	001		2001			2	001		2001	
Country or			January -			January -			January -			January -
territory	2000	December	December	2000	December	December	2000	December	December	2000	December	December
Belgium			18	48	-		397	69	1,550	-		30
Brazil	3,090	12	46	3		5	33			15		3
Canada	45,000	1,540	30,300	13,100	331	6,860	10,400	1,470	13,800	5,990	425	6,520
China	8,500	143	2,310	10		3	61		87	52,700		8,520
Egypt									2	1		2,160
Finland	4,680									19		(2/)
France	13		1	3		64	226	270	2,130	34	6	62
Germany	6,100		443			50	383	39	982	123	14	169
Hong Kong	111		87	3		2	2,330	126	2,470	1,750	16	2,330
Israel	47		836			18	83	11	65	11		6
Italy	7		20	5			510	29	376	97		27
Japan	483	6	19	56		8	1,990	6	216	74		460
Korea, Republic of	1,180	17	699	10	65	1,090	589	118	1,320	538	30	78
Mexico	31,500		9,130	17,900	71	15,300	1,680		22	2,980	4	821
Philippines	4,300						89	12	96	4		
Singapore	115	20	159			(2/)	953	20	407	7,220		14
Taiwan	65	13	347	93	5	50	2,230	60	1,130	20,400	24	146
Thailand			22				297	18	264	300		
United Kingdom	600	10	280	40		49	439	39	451	33	37	457
Venezuela	10		501				7		5	12		140
Other	1,130	28	105	87	80	400	640	47	673	1,280	14	573
Total	107,000	1,780	45,300	31,300	553	23,900	23,300	2,330	26,000	93,600	571	22,500

<sup>--</sup> Zero.

Source: U.S. Census Bureau.

<sup>1/</sup> Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2/</sup> Less than 1/2 unit.

### TABLE 16 U.S. COPPER SCRAP TRADE 1/

### (Metric tons, gross weight)

	Imports								Exports							
	Unalloyed				Alloyed			Unalloyed	l	Alloyed						
		20	001		2001			2	001		2001					
Country or			January -			January -			January -			January -				
territory	2000	December	December	2000	December	December	2000	December	December	2000	December	December				
Canada	9,130	856	10,600	54,400	2,550	45,800	45,300	1,650	38,700	41,400	2,870	33,100				
China			41	760		15	124,000	9,610	156,000	86,100	10,200	136,000				
Colombia	146			2,670	40	899				40	18	18				
Costa Rica	947	73	868	876	63	635	20			5		3				
Dominican Republic	1,480	148	1,550	1,530	127	1,570	20									
Germany	283		27	129		62	2,070	746	6,500	5,610	1,030	9,480				
Guatemala	536	73	499	1,730	114	1,990										
Honduras	402	27	484	776	17	656				1						
Hong Kong	10			17			6,900	772	4,300	6,240	755	5,440				
India							933	189	2,770	24,000	2,940	33,400				
Italy	251	39	309				147	16	117	181	2	143				
Japan	124	4	169	37			15,900	1,200	13,800	16,200	969	13,200				
Korea, Republic of				590	17	20	20,600	1,500	24,400	39,700	1,780	17,800				
Mexico	15,100	567	13,500	29,400	1,400	24,000	2,760	49	2,760	14,700	132	4,370				
Peru	277		347	99	20	112				2						
Spain				4,100		47	589		549	5,460	404	2,710				
Switzerland				24	(2/)	45	126		596	966	313	3,720				
Taiwan	17			1,150	59	554	5,080	1,070	9,120	6,190	863	5,870				
United Kingdom	11	25	64	2,550	96	919	113		36	713	177	570				
Venezuela	418		42	1,760	37	874	156									
Other	1,680 r	/ 136	1,710	10,200	399	6,170	2,830 1	r/ 198	2,250	10,300 r/	925	5,990				
Total	30,900	1,950	30,300	113,000	4,930	84,400	228,000	17,000	262,000	258,000	23,400	272,000				

r/ Revised. -- Zero.

Source: U.S. Census Bureau.

<sup>1/</sup> Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2/</sup> Less than 1/2 unit.